

1. A mixing paddle for cooling a mixture, the mixing paddle comprising:
a shaft configured to connect to a mixer;
a blade connected to the shaft, the blade comprising a hollow cavity; and
a refrigerant sealed within the hollow cavity.
2. The mixing paddle of claim 1, wherein the shaft comprises a universal adapter, the universal adapter configured to interchangeably connect to a mixer.
3. The mixing paddle of claim 1, wherein the hollow cavity extends into the shaft.
4. The mixing paddle of claim 1, wherein the refrigerant is in a state capable of absorbing thermal energy by conduction.
5. The mixing paddle of claim 4, wherein the state of the refrigerant is selected from the group consisting of a solid, liquid, and gas.
6. The mixing paddle of claim 1, wherein the hollow cavity is sized to accommodate expansion of the refrigerant during state phase changes.
7. The mixing paddle of claim 1, further comprising a monitoring device configured to monitor the thermal condition of the refrigerant.

8. A system for cooling a mixture comprising:
 - a mixer;
 - a container for holding a mixture; and
 - a mixing paddle configured to cool a mixture, the mixing paddle including a shaft configured to connect to the mixer, a blade having a hollow cavity, and a refrigerant sealed within the hollow cavity.
9. The system of claim 8, wherein the mixing paddle further comprises a universal adapter formed in the shaft, the universal adapter configured to interchangeably connect to a mixer.
10. The system of claim 8, wherein the hollow cavity extends into the shaft.
11. The system of claim 8, wherein the refrigerant is in a state capable of absorbing thermal energy by conduction.
12. The system of claim 8, wherein the hollow cavity is sized to accommodate expansion of the refrigerant during state phase changes.
13. The system of claim 8, wherein the mixing paddle further comprises a monitoring device to monitor the thermal condition of the refrigerant.
14. The system of claim 13, wherein the monitoring device comprises a thermometer.
15. The system of claim 13, wherein the monitoring device comprises a window configured to show the refrigerant within the hollow cavity.

16. A method for making a mixing paddle to cool a mixture, the method comprising:
- forming a first mixing paddle half;
 - forming a second mixing paddle half;
 - joining the first mixing paddle half and the second mixing paddle half to form a mixing paddle, the mixing paddle comprising a hollow cavity; and
 - sealing a refrigerant within the hollow cavity.
17. The method of claim 16, further comprising forming an opening in the mixing paddle, the opening providing access to the hollow cavity.
18. The method of claim 16, further comprising filling the hollow cavity with a refrigerant.
19. The method of claim 16, wherein the mixing paddle further comprises a universal adapter for interchangeably connecting to different mixers.
20. The method of claim 16, further comprising forming a window configured to show the refrigerant within the hollow cavity.

21. A method for using a mixing paddle to cool a mixture, the method comprising:
providing a mixing paddle comprising:

- a shaft configured to connect to a mixer;
- a blade comprising a hollow cavity; and
- a refrigerant sealed within the hollow cavity;

selecting the mixing paddle such that the refrigerant is configured to
provide a predetermined rate of cooling and placing the mixing paddle in
a cooling apparatus;

removing the mixing paddle from the cooling apparatus and connecting
the mixing paddle to a mixer; and

mixing a mixture with the mixing paddle and periodically monitoring the temperature
of the mixture until a desired temperature is reached.

22. The method of claim 21, further comprising monitoring the thermal condition of
the refrigerant.

23. The method of claim 21, further comprising replacing the mixing paddle in the
mixture with a second mixing paddle having a refrigerant in a state capable of absorbing
additional thermal energy from the mixture.

24. The method of claim 21, wherein the refrigerant is selected from the group
consisting of water, alcohol, and glycerol.